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Claims

[c1] 1. A method for reducing the effects of a sonic boom created by an aerospace vehicle when said vehicle is flown at supersonic speed, comprising the steps of:
providing said aerospace vehicle with a first spike extending from the nose thereof substantially in the direction of normal flight of said aerospace vehicle, said first spike having a leading end portion tapering to a predetermined cross-section, a first section having a first cross-sectional area, and a first transition region between said predetermined cross-section and said first section; and
configuring said first transition region so as to reduce the coalescence of shock waves produced by said first spike during normal supersonic flight of said aerospace vehicle.

[c2] 2. The method of claim 1 wherein said leading end portion tapers toward a point.

[c3] 3. The method of claim 1 wherein said step of configuring said first transition region comprises locating said first transition region in a predetermined location relative to said fuselage.

[c4] 4. The method of claim 1 wherein said step of configuring said first transition region comprises shaping said first transition region with a predetermined contour.

[c5] 5. The method of claim 1 further comprising the step of providing said aerospace vehicle with a second spike extending from the rear thereof substantially opposite the direction of normal flight of said aerospace vehicle.

[c6] 6. A method for reducing the effects of a sonic boom created by an aerospace vehicle when said vehicle is flown at supersonic speed, comprising the steps of: providing said aerospace vehicle with a spike extending from the tail thereof substantially opposite the direction of normal flight of said aerospace vehicle, said spike having a leading end portion tapering to a predetermined cross-section, a first section having a first cross-sectional area, and a first transition region between said predetermined cross-section and said first section; and configuring said first transition region so as to reduce the coalescence of shock waves produced by said spike during normal supersonic flight of said aerospace vehicle.